

20.01.2021

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1 PYTHON MODULE

1.1 Exercise 1

Determine the output of the three following blocks of Python code. Justify your answer with a short explanation.

```
[ ]: items = []  
for i in [75,237,1821] :  
    v, s = 0, str(i)  
    for j in range(len(s)) :  
        v += int(str(s[j]))  
    items.append(v)  
print(items)
```

```
[ ]: ages = [('Bart', 25), ('Bob', 29), ('Jack', 30), ('Sarah', 22), ('Zoe', 19)]  
[x if x[1] > 25 else (x[0].upper(),x[1]) for x in ages if 'a' in x[0]]
```

```
[ ]: import numpy as np  
A = [[1, 3], [4, 3]]  
B = [[2, 4], [2, 1]]  
M = np.dot(A,B)  
print(M)
```

1.2 Exercise 2

Explain what is underfitting and how we can prevent it from happening.